

ULTRAAQUA · SWIMMING POOL AND SPA UV DISINFECTION

POOLRAY™ Series

Compact, cost-optimised medium-pressure UV systems for disinfection and combined chlorine removal in pools and spas.



Overview

The POOLRAY™ series is a simple, professional UV system for smaller pools and spas, designed for the lowest possible investment cost. Its medium-pressure lamp disinfects the water and removes combined chlorine, while the compact in-line reactor takes up little installation space.

Large flanged connections keep head loss very low even at high flow rates. Maintenance needs are small, and disassembly and cleaning are straightforward.

Ozone UV Solutions supplies POOLRAY™ systems as an authorised ULTRAAQUA reseller and supports them locally: from sizing and installation through commissioning, servicing, lamps and spare parts.

Key features

- Compact and cost-optimised for pools and spas, with streamlined installation and service
- Medium-pressure 600 W lamp with a rated life of 9,000 hours
- Electropolished SS316L reactor with excellent resistance to chlorides
- SMARTWIPER manual sleeve wiping for clean quartz sleeves
- Manual lamp power adjustment from 60% to 100%
- Three sizes: POOLRAY NANO, MP1-600SS and MP2-600SS

Design and operation

Hydraulics

The compact reactor with CFD-optimised lamp positioning gives high hydraulic efficiency with minimal head loss, which suits combined chlorine removal.

Lamps and cleaning

The 600 W medium-pressure lamp has a rated life of 9,000 hours and runs on an electronic ballast. The SMARTWIPER manual wiping mechanism keeps the quartz sleeve clean and prevents heavy fouling.

Controls

POOLRAY NANO has a 5-line digital display. The MP models use a Siemens PLC with screen and remote control, and can be fitted with an optional pool-specialised UV sensor. A temperature sensor protects against overheating.

Maintenance

Single-sided access and interlocking lamp connectors allow quick, safe servicing without special tools. Where a UV sensor is fitted, a valve allows it to be cleaned during operation.



Typical applications

- Swimming pools and spas: disinfection and combined chlorine removal

Supplied and supported by Ozone UV Solutions

System selection and UV dose sizing · Installation and commissioning · PLC/SCADA integration · Planned servicing and lamp changes · Spare parts and consumables · 24/7 technical support line **+61 422 081 913**

Model selection

The right model depends on the circulation flow, UV transmittance (UVT) of the pool water and the required dose. Send us these figures and we will confirm the model.

POOLRAY™ models

Model	UV lamps (600 W)	Connection	Reactor weight	Reactor volume	Power	Cabinet (H×W×D mm)	Controller
POOLRAY NANO	1	2½" BSPT	5 kg	1 L	0.67 kW	400×300×210	Digital display
POOLRAY MP1-600SS	1	DN100 (ANSI 4) / D110	8.5 kg	3 L	0.69 kW	400×300×210	Siemens PLC
POOLRAY MP2-600SS	2	DN100 (ANSI 4) / D110	12 kg	4.5 L	1.37 kW	500×400×210	Siemens PLC

Flow capacity by model

Model	Max. flow at 3 m/s	Flow at 60 mJ/cm², 95% UVT	Flow at 60 mJ/cm², 98% UVT
POOLRAY NANO	30 m³/h	15 m³/h	18 m³/h
POOLRAY MP1-600SS	80 m³/h	29 m³/h	37 m³/h
POOLRAY MP2-600SS	80 m³/h	59 m³/h	74 m³/h

Flows at 60 mJ/cm² are for 3-log *Cryptosporidium* reduction and combined chlorine breakdown; 60 mJ/cm² at 95% UVT is the European design basis for pools. Connections: DN flange / matching plastic pipe size (D). Options are shown in [square brackets].

Common specifications

UV LAMPS & MONITORING	
Lamp type	Medium-pressure lamp, 600 W, electronic ballast
Rated lamp life	9,000 hours
UV monitoring	POOLRAY NANO: none · MP models: [pool-specialised UV intensity sensor]
Power control	Manual adjustment, 60–100%
Approvals	CE [UL]
UV CHAMBER	
Chamber material	SS316L / 1.4404, electropolished inside and out
Connections	POOLRAY NANO: 2½" BSPT · MP models: DN100 (ANSI 4) / D110, EN 1092 Type 01A PN10 (ANSI Class 150)
Design pressure	10 bar
Quartz sleeves	High-purity fused quartz, transmittance > 95%
Cleaning	SMARTWIPER manual sleeve wiping
Installation	In-line, horizontal or vertical · single-sided access
Other	Temperature probe · IP65 · minor wetted parts FDA-approved PTFE, PVDF, Viton
CONTROL CABINET	
Control / display	POOLRAY NANO: 5-line digital display · MP models: Siemens PLC with screen, remote control
Cabinet	Powder-painted steel [plastic] · wall-mounted, ambient 0–40 °C, non-condensing · IP54 [IP65] · fan cooled
Power supply	1 × 230 VAC ±10% +N+PE 50/60 Hz · MP models [3 × 400 VAC]
Cable length	4 m standard [up to 30 m]

Request sizing or a quote

Send us your pool or spa volume, circulation flow and UV transmittance if known. We will recommend the model and quote supply, installation and ongoing service.

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Specifications subject to change without notice.